TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

November 17, 2005

Mr. Gary Miller, Remedial Project Manager
U.S. Environmental Protection Agency
Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202-2733

Re: Gulfco Marine Maintenance Federal Superfund Site
Freeport, Brazoria County, TX
Draft Remedial Investigation and Feasibility Study (RI/FS) Work Plan
Draft Sampling and Analysis Plan

Dear Mr. Miller:

The Texas Commission on Environmental Quality (TCEQ) has completed review of the Draft RI/FS Work Plan and Sampling and Analysis Plan (SAP) for the above referenced site. The comments on these documents reflect input from TCEQ Environmental Cleanup Section II, Toxicology Section (Anthony M. Matthews), Technical Support Section (Larry Champagne) and the Natural Resource Trustees (National Oceanic and Atmospheric Agency, U.S. Fish and Wildlife Service and Texas General Land Office). Comments on the documents are presented below:

DRAFT RI/FS WORK PLAN

General Comments:

1. As discussed in the conference call on November 8, 2005, we understand the time-critical nature of administrative orders (AOs) associated with the cleanup of National Priority Listing (NPL) sites and it is not our intent to delay this process. However, it would be helpful to all stakeholders if written responses to our comments on site documents were provided prior to any revisions made to those documents and prior to the submittal of different, but associated documents. Our review process is delayed when we have to search a revised/additional document to see if our initial concerns were addressed and also when we have to repeat the same comment. If AO time constraints are the limiting factors, perhaps interim conference calls to discuss highlights and significant concerns could be used to help prevent the reoccurrence of problematic issues.

   Also, we have not yet received responses to our comments on the draft Screening Level Ecological Risk Assessment (SLERA) for this site, nor are those comments addressed in these current documents. Consequently, many of our previous concerns are repeated here.

If the intent is to retract the draft SLERA and resubmit it after additional sampling and site characterization, this should be made clear. However, even if the draft SLERA is retracted, our comments should be considered valid and incorporated into subsequent site documents.

2. As discussed in the conference call and as previously stated in our comments on the draft SLERA, the soils in the area south of Marlin Avenue should be ecologically evaluated. Proposed sampling and analysis of the southern area should incorporate the data needs of conducting an ecological evaluation. It is understood that the area is zoned for commercial/industrial land use and will likely remain so. Nevertheless, this area may be a source area for other media that may be presenting an ecological risk and there is some existing ecological habitat that necessitates evaluation. After this evaluation, any decisions made on ecological risk/remediation that include the zoning aspect would be risk management decisions.

3. In addition to the sampling defined in these documents, it is strongly suggested that samples be collected from sediment in depositional areas across the ICWW from the site. Preliminary data indicates that high levels of polycylic aromatic hydrocarbons (PAHs) and metals are located within the barge slip at lot 21. Given the likelihood of transport of sediments from this location due to both natural (water movement) and anthropogenic (barge ingress and egress) forces, it is necessary to assess the surrounding environment (to define extent of contamination). Sample locations should be selected based upon the presence of habitat (where receptors are present) and characteristics of hydrology (where sediments will be deposited).

4. Given that a fish tissue investigation has already been proposed for this site, it is suggested that the investigation be expanded to provide additional data for the ecological risk assessment. Site specific tissue data would be preferred to modeling concentrations from sediment to tissue if possible. In order to utilize this data for human health and ecological evaluations, slightly different procedures may be required. We suggest modifying the procedure (perhaps after a conference call with you and the other agencies) so this site specific data can benefit both the human health and ecological risk assessments. For example, collection of additional fish data of whole body COI concentrations would be useful for either prediction of food chain effects or to evaluate critical body residues. Given database constraints (lack of information) it is suggested that shellfish be collected instead of blue crabs.

5. Preliminary data was provided in Tables 2 -11 for soil, groundwater, surface water and sediment. However, only on-site samples were depicted on the site map in Figure 2. Please provide a site map that includes the locations of the off-site and background samples listed in the tables.

6. A conceptual site model should be developed for the surface water/sediment pathways for the freshwater ponds on the northern portion of the site. In developing these

ecological models (including those depicted in Figures 8 and 9), a distinction should be made between pathways that are incomplete and those that are complete but likely insignificant (e.g., the ingestion of surface water by benthos and carnivorous fish and birds in Figure 9).

7. Two additional tasks should be included in the Work Plan:

   a. sampling for all water supply wells located within ½-mile radius of the site boundary; and
   b. soil sampling at the residential properties in the site proximity.

8. The site hydrogeology described in Section 2.1.2 of the Work Plan indicates that groundwater resources at the site may warrant designation as Class 1 or Class 2 groundwater under 30 TAC 350.52(1) and (2), respectively. If so, relevant PCLs (e.g., $^{GW}Soil_{Ing}$ and $^{GW}GW_{Ing}$) should be included in the appropriate PSV tables and used in the COI screening process and other human health related evaluations. Further information concerning the nature of groundwater resources at the site need to be provided.

   In cases when groundwater resource meets the criteria for more than one classification, 30 TAC 353.52 directs that the higher classification be used, unless approved otherwise by the Executive Director. For example, if Class 2 and 3 criteria apply for a groundwater source, the designation should be Class 1.

9. Texas Risk Reduction Program (TRRP) exposure factors for use in the HHRA may be found in 30 TAC 350.74(a). Toxicity values, Protective Concentration Levels (PCLs) for affected media and other data relevant to the HHRA are available at http//www.tceq.state.tx.us/remediation/trrp/trrppcls.html

Specific Comments:

1. Section 3.3, pages 17-18, and Figure 8: As per our conference call, please add a conceptual site model for the southern portion of the site in order to include ecological receptors and all appropriate exposure pathways. Reptiles should be identified as potential measurement receptors in models for both the northern and southern areas and evaluated, even if only qualitatively.

2. Section 5.1, page 22, and Appendix B: It would be beneficial if TCEQ personnel and Natural Resource Trustee representatives were invited to participate in scoping meetings of NPL sites. Natural Resource Trustee representatives from NOAA and USFWS are stationed in Region 6 offices and may be able to attend with advanced notice. EPA's ERA guidance for Superfund (1997) encourages the participation of all stakeholders at the planning stage.

3. Section 5.1, pages 22-23: Although data collected during the HRS and SSI processes can be included in the risk assessment, this data alone is insufficient to quantify risk. As previously stated in our comments on the draft SLERA, initial studies such as an SSI, which are used in the preparation of the HRS documentation, are not as detailed in scope as an RI/FS delineation of nature and extent of contamination. They are used as screening tools to identify those sites that represent the highest priority for further investigation and possible cleanup under the Superfund program. Their purpose is not to fully characterize the source and the extent of the contamination at a site or to define site risks to human health and the environment. This is accomplished during the RI/FS. Therefore the SLERA should rely heavily on data obtained during the RI and less on the screening data used to list the site.

4. Section 5.6, pages 25-37 and subsections: The intended use of background samples is not clear, but as previously stated in our comments on the draft SLERA, based on EPA policy (2001), screening-out chemicals as COPECs based on a comparison to background is inappropriate. Also, the criteria used to select background locations should be provided, along with a discussion of any prior agreements made regarding the approval of these locations.

5. Section 5.6.3 states that soil will be sampled in the 0 to 6 inch and the 12 to 24 inch depth intervals. However, TRRP defines surface soil for industrial property as the soil column from 0 to 5 feet below ground surface (bgs). Therefore, sampling of only the top two feet of the soil column may not provide a data set that is considered adequate to demonstrate health protectiveness under TRRP. Also, in case offsite sampling is required to delineate contamination to residential PCLs, Gulfco is advised that 0 to 15 feet bgs is considered to be surface soil for properties classified as residential under TRRP.

   Additionally, please clarify why VOC analyses will not be performed on soil samples from the 0-6 inch depth interval.

6. Section 5.6.3, page 28: Please clarify why soil samples in Lot 21 will be analyzed for metals only. It seems more appropriate to have at least one sample analyzed for the full COC list in each area in order to rule out additional COIs being present due to gaps in historical knowledge or contaminant migration. Based upon preliminary data, sediment sampled in the barge slip in Lot 21 indicated presence of elevated concentrations of PAHs. This provides further justification for analytical data in Lot 21 soil to be extended to include additional contaminants.

7. Section 5.6.3, page 29: Activity g: Utilization of TCEQ ecological screening benchmarks for soil should include the most recent updates, as was indicated for surface water and sediment samples.

comments on the inappropriateness of using SSI data to run the risk assessment apply. The statement regarding the completion of Steps 1 and 2 is premature and should be removed.

15. Table 13: See General Comment 3 regarding the ecological evaluation of the southern portion of the site.

16. Table 14: Please revise this table to include the projected surface water and sediment samples from the northern and southern areas in order to be consistent with the text in earlier sections.

17. Tables 15-17: Tables 15 through 17 include industrial PCLs as potential Preliminary Screening Values (PSVs). However, 30 TAC 350.71(k) directs that residential PCLs be used for screening the contaminants at a site. The guidance document *TRRP 14: Screening Target Chemicals of Concern from PCL Development* describes the screening procedures under TRRP; this and other guidance documents are available at the aforementioned Internet site.

    In some cases, it appears that the lowest, most conservative screening concentration for a given COI is not identified as the PSV in Tables 15 and 16 (e.g., antimony and endrin in Table 16). Selection of the most conservative concentration for each COI will help ensure that the screening process meets the requirements of TRRP.

    Some of TCEQ's published PCLs appear to be missing from Tables 15 through 17 and 19 (e.g., thallium, dichloroethylene and γ-chlordane). These tables can be double checked for accuracy by referring to our Tier I PCL tables at the aforementioned Internet site.

18. Table 18 includes only the TCEQ Ecological Benchmark for Water as a potential PSV. Human exposures to affected surface water should also be considered by inclusion of the Surface Water Risk Based Exposure Level (^{SW}RBEL) in the table. ^{SW}RBELs are available at the aforementioned Internet site.

DRAFT SAMPLING AND ANALYSIS PLAN - VOLUME 1 FIELD SAMPLING PLAN

General Comments:

1. As discussed in our conference call, the southern portion of the site should be fully evaluated for ecological risk during the RI/FS by adequately sampling the area and screening those data against ecological benchmarks.

2. Also in our conference call, we expressed our desire that COIs not be eliminated strictly based on the SSI and other previously collected data. Thus it seems premature to limit

analysis of samples for the welding PSA (metals and VOCs), electrical shed PAS (PCBs only) and the former gasoline storage tank PSA (VOCs and metals).

3. Several of the preceding RI/FS Work Plan comments apply to the draft SAP as well, including those regarding fish and crab tissue, location and co-location of sediment/ surface water samples, and contaminant analysis.

Specific Comments:

1. Section 3.4.3, page10: As mentioned above in our comments on the RI/FS Work Plan we recommend co-locating sediment samples with surface water samples taken in the slips and ICWW, including Lot 21.

2. Section 3.9, pages16-17, and Section 5.9.4.1, page36: There is confusion over how carnivorous fish will be evaluated. The draft SLERA stated that red drum and spotted sea trout would be measurement receptors for the carnivorous fish feeding guild. However, as stated here, only edible tissue from these fish is to be evaluated for human health risk. Please clarify. Also see RI/FS Work Plan General Comment 5.

3. Section 5.7, page29:It states: "A single surface water sample is proposed for collection at each site."Usually we see labs run duplicates of surface water samples for QA/QC purposes. Please clarify if that will be the case at this site.

If you have any questions please contact me at (512) 239-6368.

Sincerely,

Ludmila Voskov, P.G., Project Manager
Team 3, Environmental Cleanup Section II
Remediation Division
Texas Commission on Environmental Quality

LV/ts

cc: Mr. Larry Champagne, TCEQ Technical Support Section, MC-225
Mr. Tony Matthews, TCEQ Toxicology Section, MC-168